



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,322	07/10/2006	Luis Santos Lopez	U 015944-3	1762
140	7590	03/06/2009		
LADAS & PARRY LLP 26 WEST 61ST STREET NEW YORK, NY 10023				
EXAMINER				
MAYO III, WILLIAM H				
ART UNIT		PAPER NUMBER		
2831				
MAIL DATE		DELIVERY MODE		
03/06/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,322

Applicant(s)

SANTOS LOPEZ ET AL

Examiner

William H. Mayo III

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 7, 8 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 7, 8 and 11-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date 02/13/09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 13, 2008 has been entered.

Information Disclosure Statement

2. The information disclosure statement filed February 13, 2008 has been submitted for consideration by the Office. It has been placed in the application file and the

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims 1, 4, 7-8, and 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rost (Pat Num 2,123,746) in view of Applicant's Own Admission of Prior Art (herein referred to as AOAPA). Rost discloses a metallic conductor (Figs 1-3) for electrical cable (Col 1, lines 1-4). Rost discloses a metallic conductor (Figs 1-3) for electrical cable (Col 1, lines 1-4). Specifically, with respect to claim 1, Rost discloses a metallic conductor (1b) capable of being a low tension electrical conductor, comprising a collected assembly of wires (Fig 3), wherein the conductor (1b) assumes a polygonal cross section comprising at least one curved side (Fig 3), wherein the polygonal cross section comprises at least one straight side (Fig 3) and one curved side (Fig 3), wherein the conductor (1b) is surrounded by a layer of insulating material (2b), wherein the conductor (1b) is shape maintaining such that it maintains the predetermine polygonal

cross section (Fig 3). With respect to claim 4, Rost discloses that polygonal cross section is a circular sector (Fig 3). With respect to claim 7, Rost discloses that the insulating material (2b) may be may of thermoplastic material comprising vinyl compound (Col 2, lines 10-29). With respect to claim 8, Rost discloses an electrical cable (Fig 3) comprising a plurality of conductors (1b), wherein the conductors (1b) are insulated from each other by an insulating material (2b) and grouped together by a cabling process under a covering (3b), wherein the conductors (1b) assume a predetermined polygonal arrangement comprising a curved side (Fig 3). With respect to claim 11, Rost discloses that the polygonal cross section is a circular sector (Fig 3). With respect to claim 14, Rost discloses that the polygonal arrangement is surrounded by a metallic protective material (4b & 5b). With respect to claim 15, Rost discloses that the protective material (4b) is a metallic protective material (Col 4, lines 3-4). With respect to claim 16, Rost discloses that the protective material (5b) may be a thermoplastic protective material (i.e. insulating layer, Col 4, lines 5-10). With respect to claim 17, Rost discloses that the layer of protective material (4b & 5b) may be a textile material applied as a textile belt (organic compound, Col 4, lines 5-10). With respect to claim 18, Rost discloses that the polygonal arrangement is surrounded by a combination of protective materials (4b & 5b). With respect to claim 19, Rost discloses a method of forming a metallic conductor comprising a collected assembly of wires (Fig 3), comprising providing an assembly (Fig 3) of conductors (1b), wherein the conductor (1b) assumes a polygonal cross section comprising at least one curved side (Fig 3) deforming, using a mechanical means of deformation (i.e. extruder), of the metallic

conductor (1b) comprising a plurality of round metallic wires (not numbered) to form a polygonal cross section, and extruding an protective covering (4b & 5b) around the metallic conductor (1b) in a preceding operation (Col 1, lines 1-35) and surround the extruded conductor (1b) in a layer of insulating material (2b) wherein the conductor (1b) is shape maintaining such that it maintains the predetermined polygonal cross section (Fig 3). With respect to claim 20, Rost discloses that the polygonal cross section comprises at least one straight side and one curved side (Fig 3).

However, Rost doesn't specifically disclose the wire being flexible wherein the diameter of each wire are less than or equal to 0.61mm, wherein the conductor changes shape after the layer of insulating material is removed (claims 1 & 19), nor the polygonal arrangement being rectangular (claim 12), nor the conductor comprising different polygonal cross sections (claims 13 & 20), nor the cable being flexible to meet classes V & VI of IEC-60228 standard (claim 21), nor the cable being sufficiently capable of being coiled on a spool (claim 22).

AOAPA teaches that multicore cables are commonly utilized as carrying power signals. Specifically, with respect to claims 1, 8, 12-13, and 19-22, AOAPA teaches that multi-core cables are commonly flexible because each multi-wire conductor is composed of flexible conductors having a diameter of less than 0.61mm in accordance with the requirements of classes V & VI of IEC-60228 standard and therefore inherently being able to be coiled on a spool, wherein the conductor changes shape after the layer of insulating material is removed (i.e. the applicant has stated that the diameter of the conductor is responsible for the conductor changing shape and since the AOAPA

teaches the same diameter then such a characteristic is inherent) and wherein the insulated conductors are commonly formed utilizing different configurations such as triangular configurations (See paragraph 4 & 5 under Characterization of Invention).

With respect to claims 1 and 21-22, it would have been obvious to one of ordinary skill in the art of cables to modify the conductors of Rost to be flexible as taught by AOAPA because AOAPA teaches that such a configuration is commonly utilized as power carrying conductors (paragraph 3).

With respect to claim 1, 8, & 19, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the metallic wire of Rost to comprise the diameter of each wire being 0.61mm, as taught by AOAPA, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claims 12-13 and 20, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the polygonal arrangement to comprise a rectangular shape and the conductor to comprise various different polygonal cross sections since it has been held that a change in form cannot sustain patentability where involved is only extended application of obvious attributes from a prior art. *In re Span-Deck Inc. vs. Fab-Con Inc. (CA 8, 1982) 215 USPQ 835.*

7. Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rost (Pat 1,370,731) in view of Applicant's Own Admission of Prior Art (herein referred to as

AOAPA). Chase discloses a metallic conductor (Fig 8) for electrical cable (Col 1, lines 9-11). Specifically, with respect to claim 23, Rost discloses electrical cable (Fig 8), consisting of a plurality of metallic conductors (61), each of the conductors (61) comprising insulation layer (62), wherein the conductor (61) and insulation layer (62) assumes a polygonal cross section comprising at least one curved side (Fig 8) that maintains the predetermined polygonal cross section (Fig 8) and a protective sheath (68) covering the plurality of insulated conductors (61 & 62, respectively).

However, Rost doesn't specifically disclose the conductor being made of a plurality of flexible wires nor the cable being flexible, nor the plurality of flexible wires having a diameter of less than 0.61mm, wherein the conductor changes shape after the layer of insulating material is removed (claim 23).

AOAPA teaches that multicore cables are commonly utilized as carrying power signals. Specifically, with respect to claim 23, AOAPA teaches that multi-core cables are commonly flexible because each multi-wire conductor is composed of plurality of flexible wires having a diameter of less than 0.61mm in accordance with the requirements of classes V & VI of IEC-60228 standard and therefore inherently being able to be coiled on a spool, wherein the conductor changes shape after the layer of insulating material is removed (i.e. the applicant has stated that the diameter of the conductor is responsible for the conductor changing shape and since the AOAPA teaches the same diameter then such a characteristic is inherent) and wherein the insulated conductors are commonly formed utilizing different configurations such as triangular configurations (See paragraph 4 & 5 under Characterization of Invention).

With respect to claim 23, it would have been obvious to one of ordinary skill in the art of cables to modify the conductors of Rost to be flexible as taught by AOAPA because AOAPA teaches that such a configuration is commonly utilized as power carrying conductors (paragraph 3).

With respect to claim 23, it would have been obvious to one of ordinary skill in the art of cables to modify the conductors of Rost to be flexible as taught by AOAPA because AOAPA teaches that such a configuration is commonly utilized as power carrying conductors (paragraph 3).

With respect to claim 23, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the metallic wire of Rost to comprise the diameter of each wire being 0.61mm, as taught by AOAPA, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

8. Applicant's arguments filed July 2, 2008 have been fully considered but they are not persuasive. Specifically, the applicant argues the following:

- A) This exist no motivation for combining Rost with AOAPA because Rost is designed for high tensile applications and Chase is designed for high

voltage applications and therefore would change the principle of operation of Rost and Chase.

- B) Neither Chase, AOAPA, nor Rost disclose the conductor maintaining its polygonal shape unless or until the layer of insulating material is removed and therefore cannot render obvious the claimed invention

Firstly, it must be stated that the courts have been consistent that the manner of operating a structure device doesn't differentiate the claimed structure for the prior art structure, if the prior art structure teaches all of the structural limitations of the claim.

Specifically, the MPEP teaches:

**MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE
APPARATUS CLAIM FROM THE PRIOR ART**

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987) (The preamble of claim 1 recited that the apparatus was "for mixing flowing developer material" and the body of the claim recited "means for mixing ..., said mixing means being stationary and completely submerged in the developer material". The claim was rejected over a reference which taught all the structural limitations of the claim for the intended use of mixing flowing developer. However, the mixer was only partially submerged in the developer material. The Board held that the amount of submersion is immaterial to the structure of the mixer and thus the claim was properly rejected.).

Secondly, the courts have also been consistent that functional language doesn't differentiate the claimed invention from the prior art, if all of the structural limitations of

the claimed invention are disclosed in the prior art references. Specifically, the MPEP teaches:

2114 [R-1] Apparatus and Article Claims — Functional Language

For a discussion of case law which provides guidance in interpreting the functional portion of means-plus-function limitations see MPEP § 2181 - § 2186.

**APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE
FROM THE PRIOR ART**

>While features of an apparatus may be recited either structurally or functionally, claims< directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function. >In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971);< In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

Based on the above guidelines, the examiner respectfully submits, that all of the structural limitations of the claimed invention are disclosed in the prior art reference and therefore must be capable of performing the same functions and be utilized in the same manner. If some different structure is responsible for performing the function of the claimed invention, then the applicant has to claim the different structure to differentiate the claimed invention from the prior art. Although the claims are interpreted in light of

the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to argument B, the examiner respectfully traverses. Specifically, the applicant has stated in his response to arguments on page 8 the following:

The claimed invention is directed to a metallic conductor comprising an assembly of flexible wires wherein the conductor is shape-maintaining such that it maintains the predetermined polygonal cross-section unless and until the layer of insulating material is removed. See page 1, lines 11-12, and page 3, lines 35-38. This is advantageous because fine flexible wires cannot keep the shape themselves.

This comment suggests that because the conductors themselves comprise a diameter of less than or equal to 0.61mm, that the conductors cannot maintain the polygonal shape because of their smaller size. While Rost and Chase may be silent to the diameters of the conductors, clearly AOAPA teaches that the conductors may comprise a diameter of 0.61mm or less and therefore would inherently exhibit the same characteristics as disclosed by the applicant's claimed conductor. Specifically, on Page 1 of the specification, under the heading "State of the Art", the applicant's specification states the following:

STATE OF THE ART

[0003] In general, a multicore cable suitable for carrying electric power is composed of insulated conductors surrounded by a covering for mechanical protection.

[0004] The multicore cable assumes a circular cylindrical external shape as a consequence of the polygonal distribution of the multi-wire conductors. For example, in the case when the cable is composed of three conductors, the centres of the latter assume a triangular arrangement inside a circular cylindrical external protective covering that surrounds the arrangement of conductors.

[0005] The said multicore cable is said to be flexible since each multi-wire conductor of which it is composed is in turn composed of a collected assembly of wires of copper, aluminium, tinned copper or other alloys with diameter less than or equal to 0.61 mm in accordance with the requirements of classes V and VI of standard IEC-60228. Obviously each multi-wire conductor is surrounded by a layer of insulating material such as PVC, polyethylene, crosslinked polyethylene, ethylene-propylene, thermoplastic rubbers and halogen-free materials.

Therefore, clearly the combined teachings of Chase in combination with AOAPA and Rost in combination with AOAPA would exhibit the same characteristics as claimed by the applicant. In light of the above the examiner respectfully submits that the 35 USC 103(a) rejection is proper and just.

Conclusion

9. This action is a non final rejection.

Communication

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245 or (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Mayo III/

William H. Mayo III

Application/Control Number: 10/550,322

Page 14

Art Unit: 2831

Primary Examiner
Art Unit 2831

WHM III
March 2, 2009